

IN THE CLAIMS:

1-76. (cancelled)

77. (previously presented) An isolated polypeptide comprising an amino acid sequence of SEQ ID NO:8 or SEQ ID NO:9, or a fragment of said polypeptide, wherein said fragment has the ability to stimulate at least one endothelial cell biological activity selected from the group consisting of cell proliferation, cell differentiation, cell migration, cell survival or vascular permeability.

78. (previously presented) A polypeptide according to claim 77, wherein said endothelial cells are selected from the group consisting of vascular endothelial cells and lymphatic endothelial cells.

79. (previously presented) A polypeptide according to claim 77, which comprises a sequence of amino acids corresponding to SEQ ID NO:8 or SEQ ID NO:9.

80. (previously presented) An isolated mature bioactive VEGF-D polypeptide.

81. (previously presented) An isolated mature bioactive VEGF-D of Claim 80, which is a human polypeptide.

82. (previously presented) An isolated mature bioactive VEGF-D of Claim 80, wherein said polypeptide has the ability to stimulate at least one endothelial cell biological activity selected from the group consisting of cell proliferation, cell differentiation, cell migration, cell survival or vascular permeability.

83. (previously presented) An isolated mature human VEGF-D polypeptide of Claim 80, consisting essentially of an amino acid sequence corresponding to position 101-196 of SEQ ID NO: 5.

84. (previously presented) An isolated mature human VEGF-D polypeptide of Claim 80, consisting essentially of an amino acid sequence corresponding to position 93-201 of SEQ ID NO: 5.

85. (previously presented) An isolated mature human VEGF-D polypeptide of Claim 80, consisting essentially of an amino acid sequence corresponding to position 92-205 of SEQ ID NO: 5.

86. (previously presented) An isolated mature human VEGF-D polypeptide of Claim 80, wherein the polypeptide is encoded by a polynucleotide which remains hybridized under a washing condition of 42°C in 0.2X SSC with a nucleic acid molecule encoding a polypeptide consisting essentially of an amino acid sequence corresponding to position 92-105 of SEQ ID NO: 5.

87. (previously presented) An isolated polypeptide consisting essentially of an amino acid sequence of SEQ ID NO:3 or a fragment thereof, wherein said polypeptide or fragment has the ability to stimulate at least one endothelial cell biological activity selected from the group consisting of cell proliferation, cell differentiation, cell migration, cell survival or vascular permeability.

88. (previously presented) A polypeptide according to claim 80, further comprising an affinity tag peptide sequence.

89. (previously presented) A pharmaceutical composition comprising a polypeptide according to claim 80, and a pharmaceutically acceptable carrier or adjuvant.

90. (previously presented) A pharmaceutical composition according to claim 89, further comprising at least one substance selected from the group consisting of VEGF, VEGF-B, VEGF-C, PIgf, PDGF, FGF and heparin.

91. (previously presented) A protein dimer comprising a first polypeptide according to Claim 80, and a second polypeptide.

92. (previously presented) A protein dimer according to claim 91, wherein said protein dimer is a homodimer in which the second polypeptide is identical to the first polypeptide.

93. (previously presented) A protein dimer according to claim 91, wherein said protein dimer is a heterodimer in which the second polypeptide is VEGF, VEGF-B, VEGF-C, PIgf or PDGF.

94. (previously presented) A polypeptide according to claim 80, which has the ability to stimulate proliferation of endothelial cells.

95. (previously presented) A polypeptide according to claim 80, which has the ability to induce endothelial cell differentiation.

96. (previously presented) A polypeptide according to claim 80, which has the ability to induce vascular permeability.

97. (new) An antibody that specifically binds a mature VEGF-D polypeptide according to Claim 80.

98. (new) An antibody according to Claim 97, wherein the antibody is a monoclonal antibody.

99. (new) An antibody according to Claim 98, wherein the antibody is a chimeric antibody or a humanized antibody.

100. (new) An antibody according to Claim 98, wherein the antibody is labeled.

101. (new) An antibody according to Claim 100, wherein the antibody is labeled covalently or non-covalently, and label is a suitable supermagnetic, paramagnetic, electron dense, ecogenic, or radioactive agent.

102. (new) An antibody according to Claim 100, wherein the label an enzyme label, or a biotin/avidin system.

103. (new) A pharmaceutical composition comprising an antibody according to Claim 97, and a pharmaceutically acceptable excipient.

104. (new) A method for inhibiting angiogenesis or neovascularization, or both, in a mammal in need thereof, comprising administering an effective amount of a pharmaceutical composition of Claim 103.

105. (new) A method for preventing in a cell the binding of VEGF-D to its corresponding receptor, or for preventing activation of a signal transducer from the receptor to its cellular site of action, the method comprising administering to the cell an effective amount of an antibody according to Claim 97.

106. (new) An antibody that specifically binds a mature VEGF-D polypeptide according to Claim 81.

107. (new) An antibody that specifically binds a mature VEGF-D polypeptide according to Claim 83.

108. (new) An antibody that specifically binds a mature VEGF-D polypeptide according to Claim 84.

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109. (new) An antibody that specifically binds a mature VEGF-D polypeptide according to Claim 85.

110. (new) An antibody according to Claim 97, wherein the antibody inhibits binding between VEGF-D and VEGFR-2.

111. (new) An antibody according to Claim 97, wherein the antibody inhibits binding between VEGF-D and VEGFR-3.